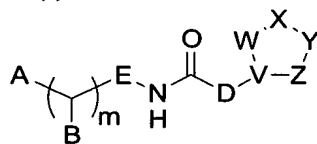


What is claimed is:

1. A compound having formula (I)



(I),

or a pharmaceutically suitable salt, ester or prodrug thereof, wherein

A is selected from the group consisting of CO<sub>2</sub>H and tetrazole

B is selected from the group consisting of H, F, OH, alkoxy and -N(R<sub>a</sub>R<sub>b</sub>)- wherein R<sub>a</sub> and R<sub>b</sub> are each independently selected from the group consisting of hydrogen, alkyl, alkylcarbonyl, alkylsulfonyl alkoxyalkyl, cycloalkyl, cycloalkylcarbonyl, cycloalkylsulfonyl, cycloalkylalkyl, heterocycle, heterocyclealkyl, heterocyclecarbonyl and heterocyclesulfonyl;

D is selected from the group consisting of aryl and heteroaryl;

E is -(CH<sub>2</sub>)<sub>n</sub>;

m and n are each independently 0, 1, or 2;

V is selected from the group consisting of -C(R<sub>c</sub>)- and -N-, wherein R<sub>c</sub> is selected from the group consisting of hydrogen, alkyl, alkoxy, alkoxyalkyl, cycloalkyl, cycloalkyloxy, cycloalkylalkyl, heterocycle and heterocyclealkyl;

W is selected from the group consisting of -C(R<sub>d</sub>R<sub>e</sub>)-, -(R<sub>d</sub>)N-, -O-, -S-, -S(O)-, and -S(O)<sub>2</sub>-;

X is selected from the group consisting of -C(O)-, -C(O)C(R<sub>f</sub>R<sub>g</sub>)-, -C(R<sub>f</sub>R<sub>g</sub>)C(O)-, -C(S)-, -C(R<sub>f</sub>R<sub>g</sub>)-, -C(R<sub>f</sub>R<sub>g</sub>)C(R<sub>i</sub>R<sub>j</sub>)-, -C=N(R<sub>j</sub>)-, -S(O)- and -S(O)<sub>2</sub>-;

Y is selected from the group consisting of -C(R<sub>k</sub>R<sub>m</sub>)-, -(R<sub>k</sub>)N-, -O-, -S-, -S(O)- and -S(O)<sub>2</sub>-;

Z is selected from the group consisting of a bond, -C(R<sub>p</sub>R<sub>q</sub>)- and -C(R<sub>p</sub>R<sub>q</sub>)C(R<sub>s</sub>R<sub>t</sub>)-;

R<sub>d</sub>, R<sub>e</sub>, R<sub>f</sub>, R<sub>g</sub>, R<sub>i</sub>, R<sub>j</sub>, R<sub>k</sub>, R<sub>m</sub>, R<sub>p</sub>, R<sub>q</sub>, R<sub>s</sub> and R<sub>t</sub> are each independently selected from the group consisting of hydrogen, alkyl, alkoxy, alkoxyalkyl, aryl, arylalkyl, aryloxy, arylalkoxy, cycloalkyl, cycloalkylalkyl, cycloalkyloxy, cycloalkylalkyl, heterocycle, heterocyclealkyl, heterocycleoxy, and heterocyclealkoxy.

2. The compound according to claim 1 wherein

m is 1;

n is 1;

A is CO<sub>2</sub>H;

B is H; and

D is phenyl.

3. The compound according to claim 1 wherein

m is 1;

n is 1;

A is CO<sub>2</sub>H;

B is H;

D is phenyl;

W is -(R<sub>d</sub>)N-;

X is -C(O)-;

V is -C(R<sub>c</sub>)-;

Y is -(R<sub>k</sub>)N-; and

Z is -C(R<sub>p</sub>R<sub>q</sub>)-.

4. The compound according to claim 1 wherein

m is 1;

n is 1;

A is CO<sub>2</sub>H;

B is H;

D is phenyl;

W is -(R<sub>d</sub>)N-;

X is -C(O)-;

V is -C(R<sub>c</sub>)-;

Y is -(R<sub>k</sub>)N-;

Z is -C(R<sub>p</sub>R<sub>q</sub>)-; and

R<sub>d</sub> is t-butylphenyl.

5. The compound according to claim 4 wherein the compound is

N-(4-{3-(4-tert-butylphenyl)-2-oxo-1-[4-(trifluoromethoxy)phenyl]imidazolidin-4-yl}benzoyl)-beta-alanine.

6. The compound according to claim 1 wherein

m is 1;

n is 1;

A is CO<sub>2</sub>H;

B is H;

D is phenyl;

W is  $-(R_d)N-$ ;

X is  $-C(O)-$ ;

V is  $-C(R_c)-$ ;

Y is  $-(R_k)N-$ ;

Z is  $-C(R_pR_q)-$ ; and

$R_d$  is selected from the group consisting of *cis* 4-*t*-butylcyclohexyl and *trans* 4-*t*-butylcyclohexyl.

7. The compound according to claim 6 wherein the compound is selected from the group consisting of

N-(4-{3-(4-*tert*-butylcyclohexyl)-2-oxo-1-[4-(trifluoromethoxy)phenyl]imidazolidin-4-yl}benzoyl)-beta-alanine;

N-{4-[1-(4-bromophenyl)-3-(4-*tert*-butylcyclohexyl)-2-oxoimidazolidin-4-yl]benzoyl}-beta-alanine;

N-{4-[3-(4-*tert*-butylcyclohexyl)-2-oxo-1-(4-phenoxyphenyl)imidazolidin-4-yl]benzoyl}-beta-alanine;

N-{4-[1-(4-bromophenyl)-3-(4-*tert*-butylcyclohexyl)-2-oxoimidazolidin-4-yl]benzoyl}-beta-alanine; and

N-{4-[1-(1,1'-biphenyl-4-yl)-3-(4-*tert*-butylcyclohexyl)-2-oxoimidazolidin-4-yl]benzoyl}-beta-alanine.

8. The compound according to claim 1 wherein

$m$  is 1;

$n$  is 1;

A is  $CO_2H$ ;

B is H;

D is phenyl;

W is  $-(R_d)N-$ ;

X is  $-C(O)-$ ;

V is  $-C(R_c)-$ ;

Y is  $-(R_k)N-$ ; and

Z is  $-C(R_pR_q)C(R_sR_t)-$ .

9. The compound according to claim 1 wherein

$m$  is 1;

$n$  is 1;

A is  $CO_2H$ ;

B is H;  
D is phenyl;  
W is  $-(R_d)N-$ ;  
X is  $-C=N(R_j)-$ ;  
5 V is  $-C(R_c)-$ ;  
Y is O; and  
Z is  $-C(R_pR_q)-$ .

10. The compound according to claim 1 wherein

10 m is 1;  
n is 1;  
A is  $CO_2H$ ;  
B is H;  
D is phenyl;  
15 W is  $-(R_d)N-$ ;  
X is  $-C=N(R_j)-$ ;  
V is  $-C(R_c)-$ ;  
Y is O;  
Z is  $-C(R_pR_q)-$ ; and  
20  $R_d$  is t-butylphenyl.

11. The compound according to claim 1 wherein

m is 1;  
n is 1;  
25 A is  $CO_2H$ ;  
B is H;  
D is phenyl;  
W is  $-(R_d)N-$ ;  
X is  $-C=N(R_j)-$ ;  
30 V is  $-C(R_c)-$ ;  
Y is O;  
Z is  $-C(R_pR_q)-$ ; and

$R_d$  is selected from the group consisting of *cis* 4-*t*-butylcyclohexyl and *trans* 4-*t*-butylcyclohexyl.

12. The compound according to claim 11 wherein the compound is selected from the group consisting of

N-[4-((2Z)-3-(4-tert-butylcyclohexyl)-2-{[4-(trifluoromethoxy)phenyl]imino}-1,3-oxazolidin-4-yl)benzoyl]-beta-alanine;

N-{4-[(2Z)-2-[(4-bromophenyl)imino]-3-(4-tert-butylcyclohexyl)-1,3-oxazolidin-4-yl]benzoyl}-beta-alanine;

5 N-(4-{(2Z)-3-(4-tert-butylcyclohexyl)-2-[(4-phenoxyphenyl)imino]-1,3-oxazolidin-4-yl}benzoyl)-beta-alanine; and

N-{4-[(2Z)-2-(1,1'-biphenyl-4-ylimino)-3-(4-tert-butylcyclohexyl)-1,3-oxazolidin-4-yl]benzoyl}-beta-alanine.

10 13. The compound according to claim 1 wherein  
m is 1;

n is 1;

A is CO<sub>2</sub>H;

B is H;

15 D is phenyl;

W is -(R<sub>d</sub>)N-;

X is -C=N(R<sub>j</sub>)-;

V is -C(R<sub>c</sub>)-;

Y is -(R<sub>k</sub>)N-; and

20 Z is -C(R<sub>p</sub>R<sub>q</sub>)-.

14. A pharmaceutical composition comprising a therapeutically effective amount of the compound of claim 1 in combination with a pharmaceutically suitable carrier.

25 15. A method of selectively antagonizing the glucagon receptor in a mammal comprising administering an effective amount of the compound of claim 1.

16. A method of treating type 2 diabetes in a mammal comprising administering a therapeutically effective amount of the compound of claim 1.

30 17. A method of treating symptoms related to type 1 or type 2 diabetes in a mammal wherein said symptoms are selected from the group consisting of hyperglycemia, hyperinsulinemia, inadequate glucose clearance, obesity, hyperlipidemia, lipid metabolism disorders and hypertension comprising administering a therapeutically effective amount of  
35 the compound of claim 1.

18. A method of treating diabetes or Syndrome X, comprising administration of the

compound of formula (I) of claim 1 in combination with an existing anti-diabetic agent selected from the group consisting of insulin, mecasermin, nateglinide, metformin, chlorpropamide, glipizide, glyburide, troglitazone, pioglitazone, rosiglitazone, acarbose, voglibose, miglitol, zopolrestat and repaglinide.

5

19. A method of treating obesity comprising administering the compound of formula (I) of claim 1 in combination with an anti-obesity agent selected from the group consisting of orlistat, sibutramine, dexfenfluramine, bromocryptine, phentermine, phendimetrazine and mazindol.

10